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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,679	09/08/2003	Edouard Serras	046190/268781	1233
826	7590	09/22/2005		
ALSTON & BIRD LLP BANK OF AMERICA PLAZA 101 SOUTH TRYON STREET, SUITE 4000 CHARLOTTE, NC 28280-4000				EXAMINER DANIELS, MATTHEW J
				ART UNIT 1732 PAPER NUMBER

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/657,679	SERRAS ET AL.
Examiner	Art Unit	
Matthew J. Daniels	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 08 September 2003.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-15 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-15 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/8/03.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
5) Notice of Informal Patent Application (PTO-152)
6) Other: ____.

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered. In particular, attention is drawn to Page 1, line 4 for two such references.
2. The information disclosure statement filed 8 September 2003 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. In this case, none of the foreign references except the International Search Report have been provided. A copy of each reference not initialed is requested for proper consideration.

Claim Rejections - 35 USC § 112

3. **Claims 3, 4, and 5** are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for Claim 1, does not reasonably provide enablement for Claims 1 combined with any of Claims 3, 4, or 5. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make or use

the invention commensurate in scope with these claims. Specifically, Claim 1 is directed to causing rapid crystallization by reducing the pressure on the mixture. Subsequent claims 3, 4, and 5 are directed to crystallization in ways that contradict that of Claim 1, namely by “ceasing compression” (Claim 3), “unmolding” (Claim 4), and “crystallizing...outside the mold” (Claim 5). In Claim 3, ceasing compression does not necessarily mean releasing the pressure, only avoiding further compaction, and thus it is not clear how ceasing compression causes crystallization. In the alternative that ceasing compression is synonymous with releasing pressure, the claim is redundant. In Claim 4, releasing the pressure would necessarily precede unmolding, and thus unmolding could not cause crystallization itself. In Claim 5, if pressure release causes crystallization, then crystallizing outside the mold could not occur because the mixture would have been crystallized by the release of pressure to remove it from the mold.

4. **Claims 3, 4, and 5** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This rejection is set forth for the same reasons as those described above under 35 USC 112, first paragraph. Because the dependent claims rejected appear to contradict the independent claim, and because it cannot be determined exactly what is being claimed as it relates to Claim 1, Claims 3, 4, and 5 are therefore also indefinite.

5. **Claims 2, 6, and 11** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. **As to Claim 2**, firstly, “equal to twice the quantity of water

necessary for crystallization of the plaster at atmospheric pressure" is itself indefinite because no quantity at atmospheric pressure is listed, and thus it is unknown and indefinite what twice that quantity is. Additionally, the first portion of the claim is directed to a first quantity of water pressed at what the Examiner interprets to be all pressures above the threshold pressure, and the second portion is directed to a particular water weight percentage and pressure. This constitutes a claim to a range within a range. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In this case, it is not clear which portion of the claim is to be examined or limits the invention. **As to Claim 6**, "to a minimum value or close to a minimum" is a relative phrase, rendering the claim indefinite. **As to Claim 11**, "such as" renders the claim indefinite because it is unclear and indefinite if that which follows is a claim limitation, or merely an example.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Chassevent (USPN 1703097).** Chassevent teaches a method for manufacturing a building element based on plaster (Page 1, lines 15-20), comprising placing plaster and water in a mold in a shape (Page 1, lines 26-27 and 36-37), compressing the mixture (Page 1, lines 30-35), and applying a pressure of 150 bars (Page 1, left column, line 31), and unmolding (inherent). Note that 150 bars appears in instant Claim 2, and therefore must also be within the scope of Claim 1. Additionally, it should be noted that 150 bars converts to 2175 pounds per square inch or 15 MPa. Chassevent's teaching of 100 to 500 kilograms per square centimeter converts to a range of 1422 p.s.i. to 7111 p.s.i. Although Chassevent appears to be silent to the crystallization, because the claimed process of the instant application is the same as that disclosed by Chassevent, the effect must have inherently been present in the method of Chassevent. **As to Claim 2,** Chassevent teaches 35 cubic centimeters of water (Page 1, line 43) per 100 grams of molding compound. Because water weighs 1 gram per cubic centimeter, the mass of water is therefore 35 grams per 100 grams of plaster, anticipating the claim. As set forth in the rejection of Claim 1, 150 bars is within the range disclosed by Chassevent (Page 1, line 31, Chassevent teaches 1422 p.s.i. to 7111 p.s.i., and 150 bars is 2175 p.s.i.). Because this claim also constitutes a range within a range (See the rejection of Claim 2 under 35 USC 112, first paragraph, above), Chassevent's anticipation of the

narrow limitation must therefore also meet the broad limitation set forth in the first portion of the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 3, 4, 6 and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chassevent (USPN 1703097). Chassevent teaches the subject matter of Claim 1. See the rejection of Claim 1 under 35 USC 102(b). **As to Claims 3 and 4**, releasing of the pressure would have been an inherent aspect of the process in order that the articles produced be used for their intended purpose. In this case, and because Claim 1 indicates that releasing of pressure causes crystallization, this would have also been an obvious or inherent aspect of Chassevent's process also. **As to Claim 6**, initial compression and then increasing the pressure applied to the mixture would have been inherent or obvious to one of ordinary skill in the art practicing Chassevent's method. Firstly, one of ordinary skill would have recognized that instantaneous application of 1422 to 7111 pounds per square inch of pressure would have been difficult using conventional hydraulic presses, and thus would have found it obvious to use gradual application of the pressure in order to avoid damaging the press. Additionally, Chassevent teaches that the pressure distributes the water (Page 1, line 28-30), which would have suggested to one of ordinary skill that the process is gradual as the water penetrates the powder. Application of the

pressure would have obviously or inherently caused reduction of the voids to a minimum value.

As to Claim 7, Chassevent teaches adding various colors or coloured bodies (Page 1, lines 75-76), and additionally silicate of soda (Page 1, lines 90-91). Either or both of these would have obviously been granular in form.

8. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over Chassevent (USPN 1703097) and Revord (USPN 3809566). Chassevent teaches the subject matter of Claim 1. See the rejection of Claim 1 under 35 USC 102(b). **As to Claim 5**, Chassevent appears to be silent to the claimed limitation. However, Revord teaches that it is a well known aspect in the art to compress, eject the final product, and then set the to provide a crystalline mass (3:20-22 for compression, 3:25-30 for ejection and then crystallization). It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Revord into that of Chassevent in order to avoid the holes and voids present in prior art processes (1:52-2:2) and shorten the drying time (2:3-16).

9. **Claims 8-12 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chassevent (USPN 1703097) in view of Dailey (USPN 2571343). Chassevent teaches the subject matter of Claims 1 and 7. See the rejection of Claim 1 under 35 USC 102(b) and the rejection of Claim 7 under 35 USC 103(a). **As to Claims 8-9**, Chassevent teaches that colors and silicate of soda may be used. Although Chassevent does not specifically teach their inertness with the plaster, Dailey additionally teaches other fillers (1:30-38). Dailey specifically teaches silica (1:37), or sand, which would be inert with respect to the plaster. Dailey additionally

teaches organic fillers such as paper fiber, wood flour, hemp, and starch (1:30-38), and the Examiner takes the position that these substances would be at least partially “not chemically inert” with respect to the plaster. Dailey additionally teaches soluble potassium salts in order to control setting expansion (6:50-52), which also constitutes a filler that is “not chemically inert” with respect to the plaster. It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Dailey into that of Chassevent in order to produce a dense, strong and tough cast (4:45-50) because of its reinforcement (1:36) requiring no drying (4:24-35). **As to Claims 10 and 11**, Dailey teaches the beneficial aspects of melamine (2:20-25). It would have been further *prima facie* obvious to one of ordinary skill in the art at the time of the invention to incorporate Dailey’s method in order to provide “the very desirable characteristic of decreasing the amount of water required to be mixed with the alpha gypsum to produce a mix of pourable of fluid consistency.” (2:15-19). **As to Claim 12**, Dailey teaches that temperature is a result effective variable (2:34-43). See MPEP 2144.05 II and *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Additionally, because 15 to 20 degrees C is approximately room temperature, and because both pressures are encompassed by Chassevent’s teaching of 1422 to 7111 p.s.i., it is submitted that these conditions would have been *prima facie* obvious to one practicing Chassevent’s method. **As to Claim 14**, Dailey teaches the beneficial aspects of melamine (2:20-25). It would have been further *prima facie* obvious to one of ordinary skill in the art at the time of the invention to incorporate Dailey’s method in order to provide “the very desirable characteristic of decreasing the amount of water required to be mixed with the alpha gypsum to produce a mix of pourable of fluid consistency.” (2:15-19).

10. **Claims 13 and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chassevent (USPN 1703097) in view of Jagdmann (USPN 1925050). Chassevent teaches the subject matter of Claim 1. See the rejection of Claim 1 under 35 USC 102(b). **As to Claims 13 and 15**, Chassevent is silent to the claimed limitations. However, Jagdmann teaches driving at least one element with a reduced cross section into the mixture in the mold and guiding and driving a rod axially in translation into the mixture (Page 1, lines 40-45, also see Page 4, lines 70-92 and Figs. 7 and 8). It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Jagdmann into that of Chassevent in order to provide a more uniform size and density (Page 1, lines 1-55).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Claus (USPN 1624904) also teaches the limitations disclosed in Claims 13 and 15.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Daniels whose telephone number is (571) 272-2450. The examiner can normally be reached on Monday - Thursday, 7:30 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJD 9/12/05

MJD

Michael P. Colaianni

**MICHAEL P. COLAIANNI
SUPERVISORY PATENT EXAMINER**